

Sexuality Education for Urban Immigrant Adolescents and Their Families

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Introduction

The Families United for Teen Health (FUTH) is an intervention involving adolescents and their parents. The goal is to promote positive attitudes toward abstinence and reduce premature sexual activity among youth. The primary target population is 10 to 15 year-old youth, predominantly of Haitian descent, living in Boston neighborhoods. Parents constitute the secondary target population. Pressure to engage in premature sexual activity is intense and often associated with other high-risk behaviors that can lead to poor social and health outcomes. FUTH provides abstinence education using a youth curriculum, tutoring, and skill building activities.

The youth intervention includes: - an *after-school program* where help is provided for homework daily in addition to sexuality education and asset building activities; and - a *six-week summer program* where daily homework is replaced with increased time for skill building activities, field trips and reading. The parent's intervention offers workshops in community churches of various denominations. The workshops aim at helping parents understand and manage the often unexpected changes of adolescence. The evaluation looks at outcome variables before and after the intervention, and also compares the results from the participants of the intervention to a comparison group. We hypothesize that the abstinence attitudes and behaviors would increase for the intervention group, and would decline with age for adolescents in the comparison group.

Methods

A pre and post-test design is used to measure program effectiveness in the intervention group, and a quasi-experimental design is used to compare program effectiveness between intervention and comparison groups. The comparison group consists of students in a summer program who had not received the abstinence education curriculum. The youth instrument is comprised of AFL Core Questionnaire, which includes the following outcome measures: attitudes toward abstinence and sexual intent, communication, decision making, self-confidence, participation in extracurricular activities and civic engagement, outlook toward the future. The Institutional Review Board protocol included parental consent and youth assent and was approved by the Boston University human subjects committee.

In addition, outcome measures included: Center for Epidemiological Studies Depression Scale for Children (CES-DC), HARE self-esteem and Youth Developmental Assets Scales and have been tested in similar populations. CES-DC contains 20 items to measure depressive symptoms (Cronbach alpha 0.87-0.90); Hare Self-Esteem Scale short version with 30 items in three sub-domains of school, peer, and home (strong test-retest reliability, 0.74 ICC); and Youth Developmental Assets Scale based on 37 items as the most reliable (alpha 0.61 to 0.81). McNemar's Chi-square is used to compare pre and post-test categorical data about attitude change toward abstinence; paired-T test is used for continuous variables and the scales. In addition, repeated measure analysis is used to assess differences in outcome variables in the intervention group compared to the comparison group over time.

Results

From 2004 to 2008, 346 students enrolled in the intervention program; 143 (41%) completed the pretest questionnaire and are included in this analysis. Of those 143 participants, 116 (81%) completed the post-test questionnaire. The participants who completed pre-test questionnaire have a mean age of 12.2 ± 1.7 years; 84 (59.1%) of them are female; 130 (91%) are black and 12 (9%) others; 2 (1.6%) are Hispanic; 64 (47.4%) are enrolled in the free school lunch program, and 18 (13.5%) reported that their parents receive Medicaid and/or food stamps. These students had received, on average, 22.5 ± 11.0 hours of abstinence education. The comparison group is composed of 19 students completing the pre-test questionnaire; 17 of them completed the post-test. Their mean age is 13.5 ± 1.0 years; 11 (58%) are female; 16 (84%) are black and 3 (15.8%) others; and 1 (5.3%) is Hispanic. Differences in demographic data between intervention and comparison groups are not statistically significant, except for age, the comparison group being slightly older ($T=5.03$, $p < .0001$).

To assess if the positive abstinent behaviors remain stable over time in the intervention group we tested for significant decline at follow up. In the intervention group, 78 (69%) participants in the pre-test and 80 (71%) in

the post-test indicated positive attitude toward remaining abstinent and did not change over time (not significant [NS]). Youth talked as much or more with their parents about sexuality and pregnancy after the intervention [76 (66.1%) in pre-test versus 80 (69.6%) in post-test, NS]. Next we assessed if there was a change in the measures of self-esteem over time within groups. There was no change in the level of self-esteem of the youth before or after the intervention (mean per item score 2.54 ± 0.2 in pre-test and 2.53 ± 0.3 in post-test, NS). However, there was a significant decline in the Hare Self-esteem school subscale [1.97 ± 0.5 in pre-test to 1.80 ± 0.5 in post-test, in that group. ($T=-3.0$, $p=0.003$). Students show similar mean depressive symptoms from pre-test to post-test (CES-DC: 17.5 ± 9.9 to 16.6 ± 10.7 , NS) and no change in youth assets (mean per item score 2.9 ± 0.4 to 3.0 ± 0.4 , NS). For the comparison group, the Hare Self-esteem scores were similar pre-test to post-test: (2.44 ± 0.2 to 2.32 ± 0.4 , NS) and the CES-DC scores showed similar mean depressive symptoms from pre-test to post-test (mean score 19.5 ± 9.7 to 17.1 ± 8.3 , NS).

To assess if there was a group effect on the results, repeated measures analyses were performed. The repeated measure analysis for the CES-DC and Hare Self-esteem Scales showed a positive effect for the intervention compared to the comparison groups. However, neither the differences in scales scores between the groups nor their differences from pre-test to post-test are statistically significant. Further analysis of group effects will be performed after increasing the power of the comparison group.

Discussion

The results for the intervention group showed maintenance of the abstinent attitudes and scores from pre-test to post-test, which did not decline with age as expected. This may indicate a trend toward a positive effect of the intervention to help youth maintain positive attitude and behavior toward sexual abstinence before marriage. The one year follow up results will be crucial in assessing the persistence of positive attitude toward remaining abstinent after the intervention. It is not clear why the intervention group had significantly decreased school self-esteem and this will be reassessed with a larger number of intervention and comparison participants. Also the persistence of the depressive symptoms before and after the intervention was interesting, but not surprising. We know that most of the participants belong to a new immigrant group living in urban area, and have consistent stressors in their lives, both at home and at school. This could be pointing toward a high prevalence of adjustment disorder with depressed mood among the participants, and deserves additional investigation. The data from the comparison group included in this analysis would help determine whether the positive outcomes observed in the intervention group resulted from the intervention or is due to chance alone. However, valid conclusions are not possible until the power of the comparison group is increased. This year, the project staff plans to boost enrollment in the comparison arm of the study, to improve the validity of the evaluation in future analysis.

Implications

Families United for Teen's Health (FUTH) is one of the first programs created to provide abstinence education to predominantly new immigrant Haitian families living in an urban area. It has provided much needed services for youth risk reduction such as help to overcome language barriers, skills for school success, tools to remain abstinent until marriage, and a safe networking place for the youth. The successful implementation of this project will establish that inner-city youth and their parents can access abstinence education and youth development programs that are culturally appropriate and could become a model for other immigrant communities with similar characteristics and needs. If the data continues to show a sustained maintenance of positive abstinence attitude and behavior, then FUTH will support the benefit of abstinence education and youth development initiatives on the young people's decision to delay sexual initiation and adopt healthy and constructive life choices.

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